

**Special tools required:**

- [11 9 240](#)

**Warning!****Risk of scalding!**

Carry out work on the vehicle only when wearing oil- and heat-resistant protective gloves incl. forearm protection, face guard and protective apron.

**Attention!**

Carry out engine oil service only when the engine is at operating temperature.

Observe the exact engine oil filling capacity.

Overfilling the engine with engine oil will result in **engine damage**.

**Attention!****Risk of damage!**

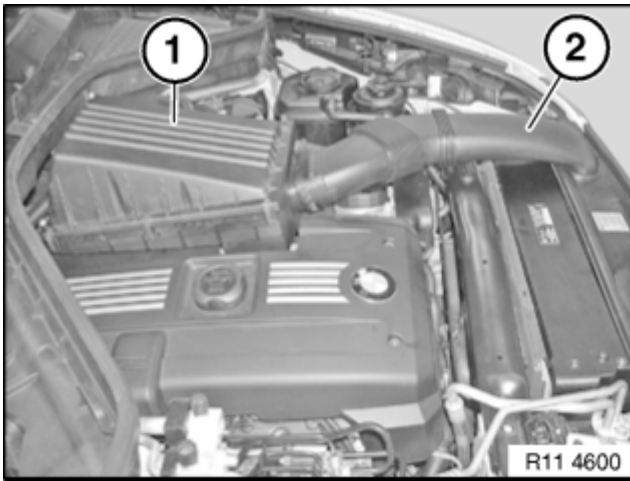
Protect belt drive against dirt.

Cover with suitable materials.

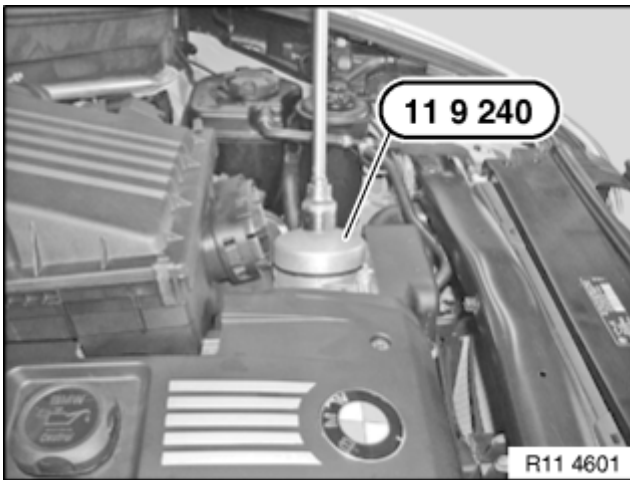
**Recycling:**

Catch and dispose of drained engine oil in a suitable collecting vessel.

Observe country-specific waste disposal regulations.



Remove intake neck (2) for intake silencer housing (1).

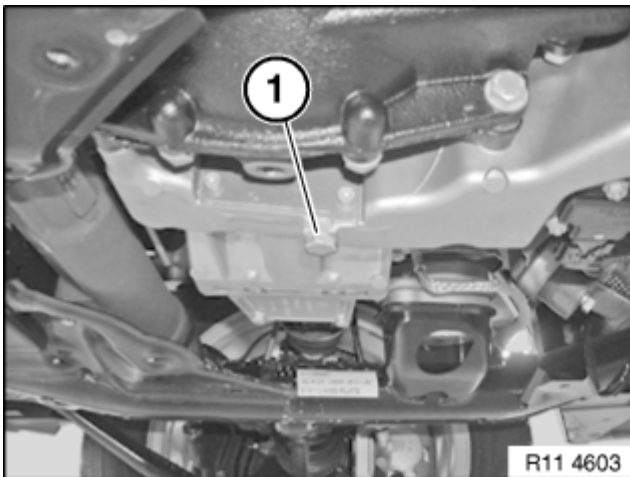


Release oil filter cover with special tool [11 9 240](#) .

Tightening torque [11 42 1AZ](#).

*Note:*

Engine oil flows out of the oil filter housing and back into the oil sump.



*Note:*

View: without underbody protection and reinforcement plate.

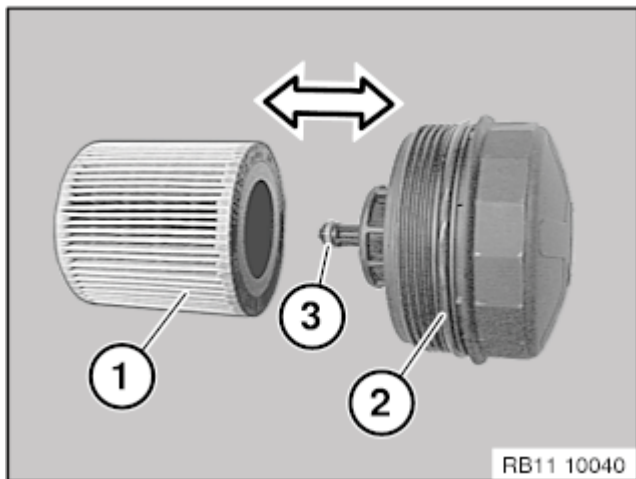
Unclip sensor opening on reinforcement plate.

Open oil drain plug (1) of oil sump and drain engine oil.

Tightening torque [11 13 1AZ](#).

*Installation note:*

**Replace sealing ring.**

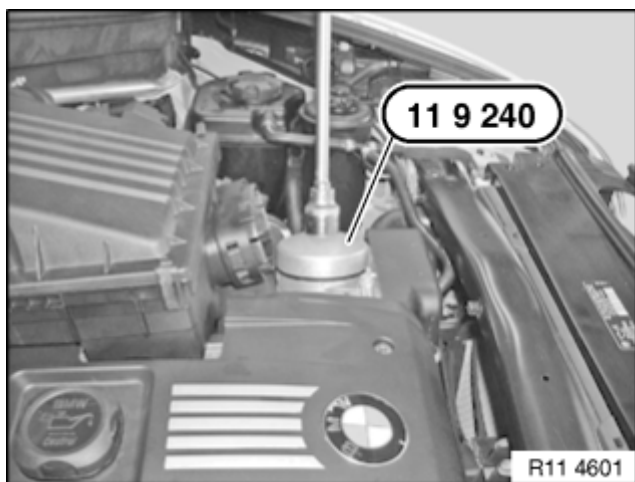


Remove and insert oil filter element (1) in direction of arrow. *Installation note:*  
**Replace oil filter element (1) and sealing ring (2).**

Replace gasket (3) and renew if necessary.

*Note:*

Coat sealing rings (2,3) with engine oil.



Secure oil filter cover with special tool [11 9 240](#) .

Tightening torque [11 42 1AZ](#).

*Note:*

Pour in [engine oil](#).

Start engine and run at idle until oil pressure indicator light goes out.

Switch off engine.

Check oil filter cover and oil drain plug of the oil sump for tightness.

Assemble engine.



Recommendation: Check engine oil level:

- Park vehicle on a horizontal surface
- Allow engine to run at operating temperature for three minutes with increased engine speed (about 1100 rpm)
- Read off engine oil level in instrument cluster or on control display
- Top up engine oil if necessary

## 24 00 030 Removing and installing automatic transmission (GA6HP19Z) N52K



### Special tools required:

- [00 2 030](#)
- [00 9 010](#)
- [00 9 120](#)
- [00 9 130](#)
- [23 4 050](#)
- [24 1 110](#)
- [24 1 370](#)
- [24 2 390](#)



### Important!

To prevent heavy damage to the engine block, the protruding thread of the transmission bolts absolutely must be checked for damage and corrosion **before removal**.

If there are signs of corrosion, the rust must be removed and the threads must be cleaned **before removal**.

Replace rusted, damaged screws.

Failure to comply with this instruction will result in serious damage to the engine block and transmission.



### Important!

After completion of repair work, check [transmission oil level](#).

Use only the approved [transmission oil](#).

Failure to comply with this requirement will result in serious damage to the automatic transmission!



## Important!

### Aluminium-magnesium materials.

**No** steel screws/bolts may be used due to the threat of electrochemical corrosion.

A magnesium crankcase requires aluminium screws/bolts exclusively.

Aluminium screws/bolts must be replaced each time they are **released**.

Aluminium screws/bolts are permitted with and without colour coding (blue).

For reliable identification:

Aluminium screws/bolts are **not magnetic**.

Jointing torque and angle of rotation must be observed without fail (**risk of damage**).

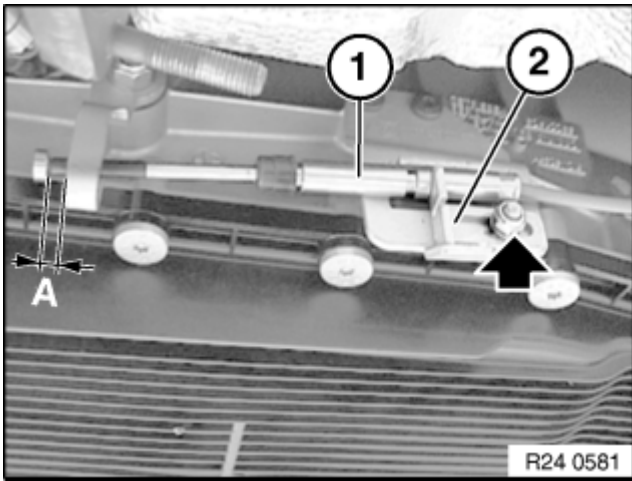


## Necessary preliminary tasks:

- Disconnect the [battery](#).
- If necessary, remove [fan cowl](#)
- Remove [underbody protection](#)
- Remove [reinforcement plate](#)

Important installation notes are described in this job item

- Remove [exhaust system](#)
- Remove heat shields
- Remove [propeller shaft from front axle differential](#)
- [Remove](#) propeller shaft from transmission.
- Release centre mount.
- **Note:**
- Bending the propeller shaft by an excessive angle can cause premature damage to the joint/propeller shaft!
- Tie up propeller shaft to underbody.
- Support engine with lifter when removing transmission.

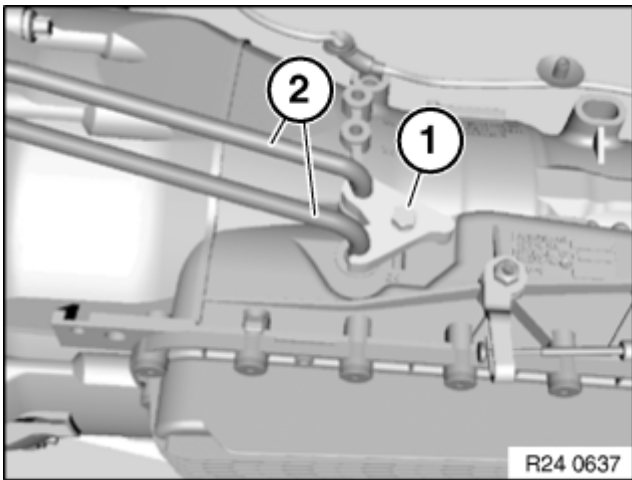


Unfasten nut.

Disconnect cable (1).

*Installation note:*

- Unfasten nut.
- Adjust cable by means of holder (2) until distance A = 1 mm is obtained
- Tighten nut.



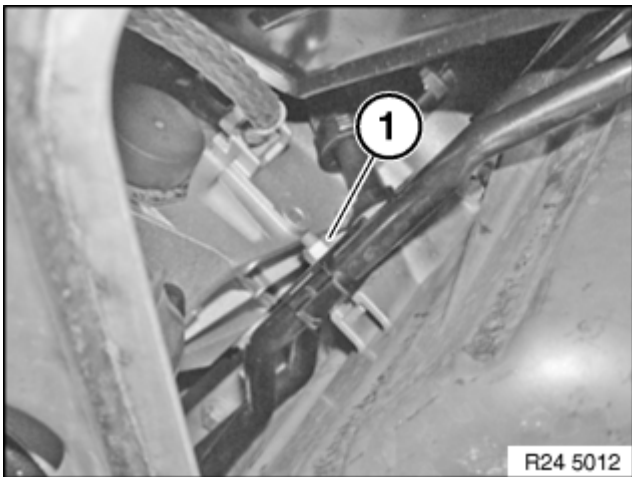
Release screw (1).

Disconnect hydraulic lines (2) to transmission oil cooler.

Tightening torque [17 22 1AZ](#).

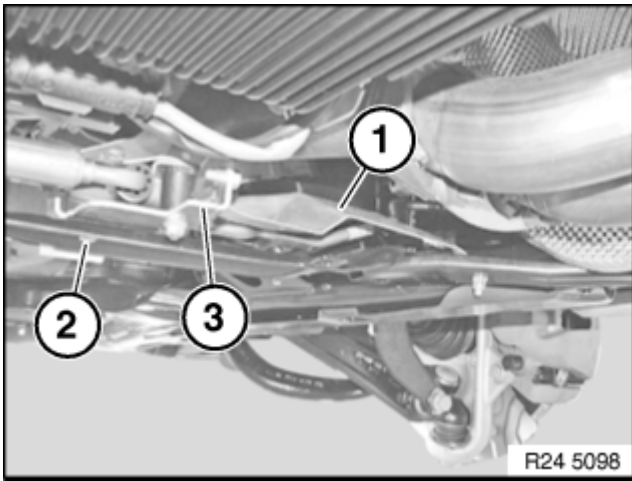
*Installation note:*

Replace sealing rings.



Release nut (1) and bracket from transmission oil lines on oil sump.

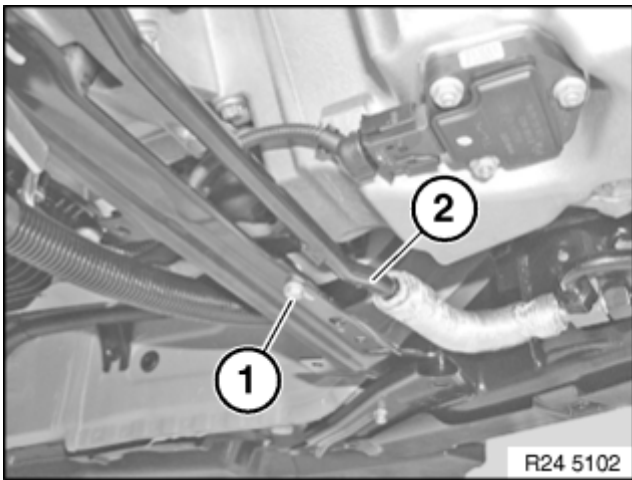
Tightening torque [17 22 2AZ](#).



Remove heat shield (1).

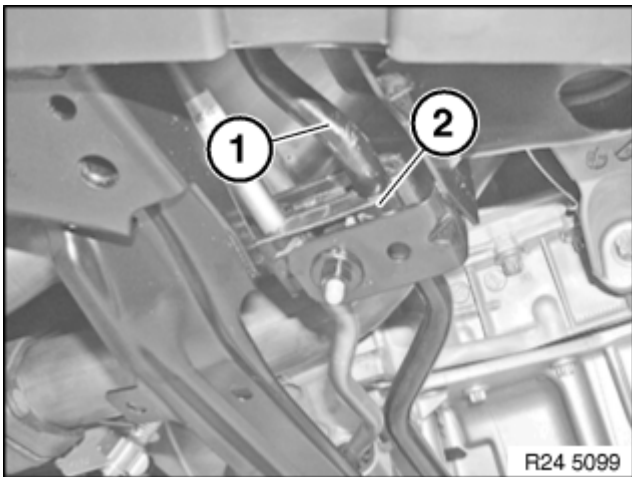
Release screw (2).

Detach bracket (3) from front axle.

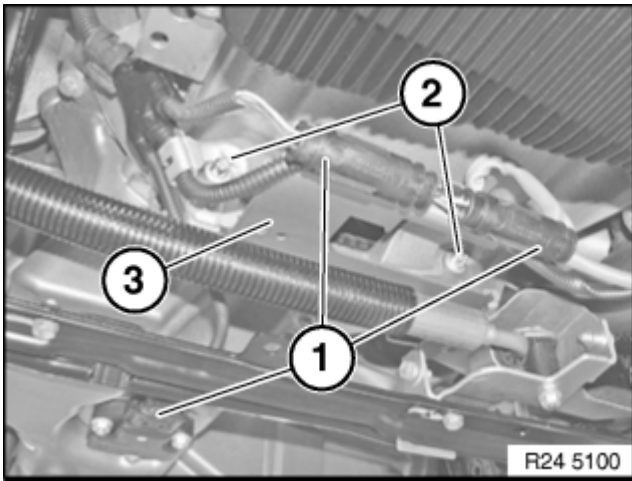


Release screw (1).

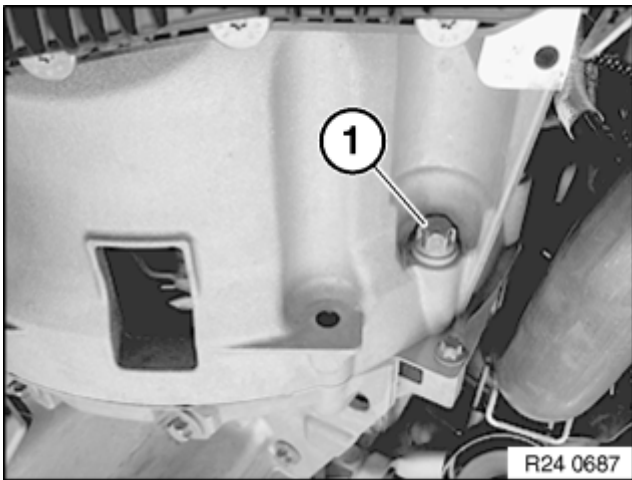
Detach oil line (2) from front axle.



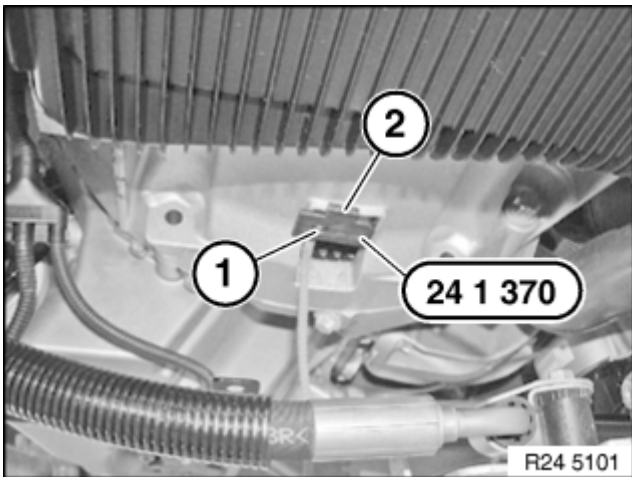
Detach engine oil pipes (1) from holder (2).



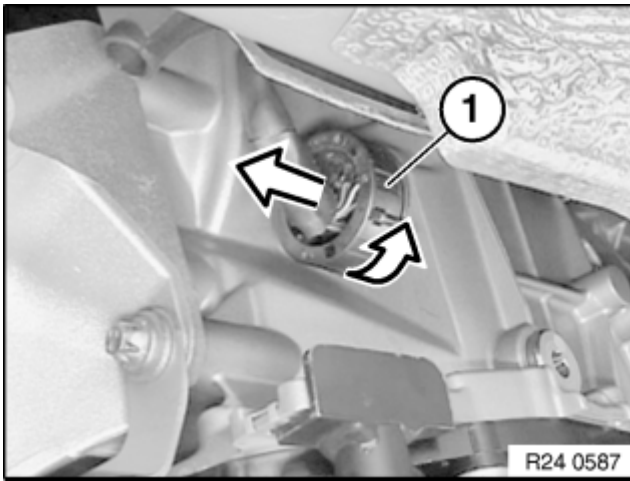
Disconnect connector (1).  
Unfasten screws (2).  
Remove retaining plate (3).  
Tightening torque [24 00 1AZ](#).



Release aluminium screw (1) on right next to cable retaining plate with special tool [00 9 010](#) .  
Aluminium screws must be replaced.  
Tightening torque [24 00 2AZ](#).



Insert special tool [24 1 370](#) into recess of transmission housing and secure with screw (1). *Note:*  
Check installation position.  
Lug (2) must point in opposite direction to direction of travel!



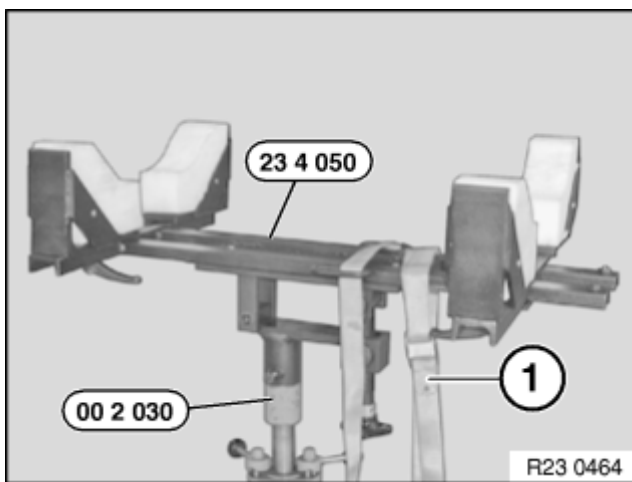
- Unlock and disconnect connector (1) by turning.
- Do not touch pins.
- Release cable from brackets.
- Insert special tool [24 2 390](#) in sealing cup.

Repair work is described in

[Notes on mechatronics](#)

**Important!**

Read and comply with important note.



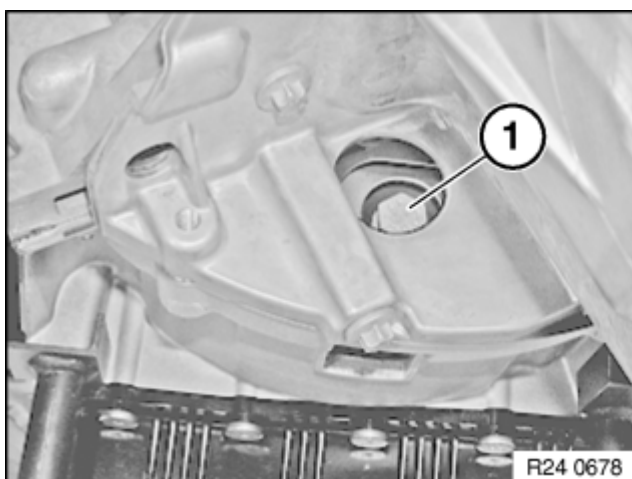
**Supporting transmission:**

Support transmission with special tools [23 4 050](#) , [00 2 030](#) .

Secure transmission to mounting with tensioning strap (1).

Tasks are described in [Transmission bracket](#).

After completion of work, check transmission fluid level.

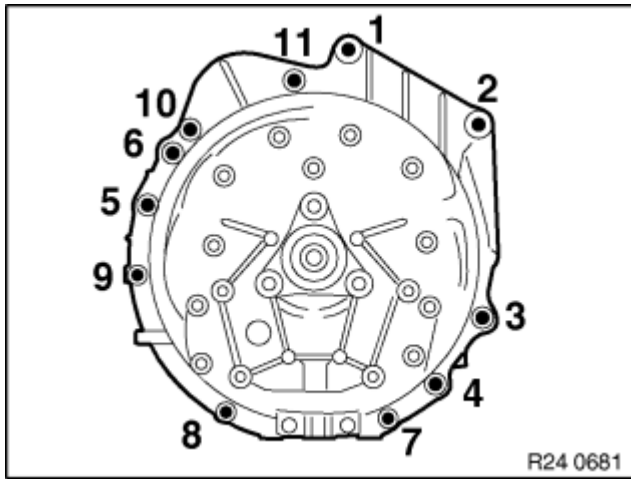


Crank engine at vibration damper in direction of rotation until screw (1) is visible in recess.

Release all bolts of torque converter with special tool [24 1 110](#) .

Crank engine further and release remaining 5 bolts.

Tightening torque [24 40 1AZ](#).



Release screws.

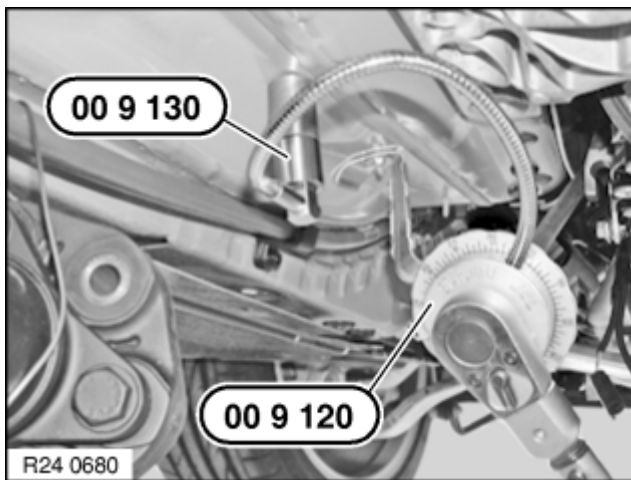
*Installation note:*

Observe **screw fastening sequence** without fail.

Tightening torque, steel screws [24 00 1AZ](#).

Aluminium screws **must** be replaced.

Tightening torque and angle of rotation, aluminium screws/bolts [24 00 2AZ](#).



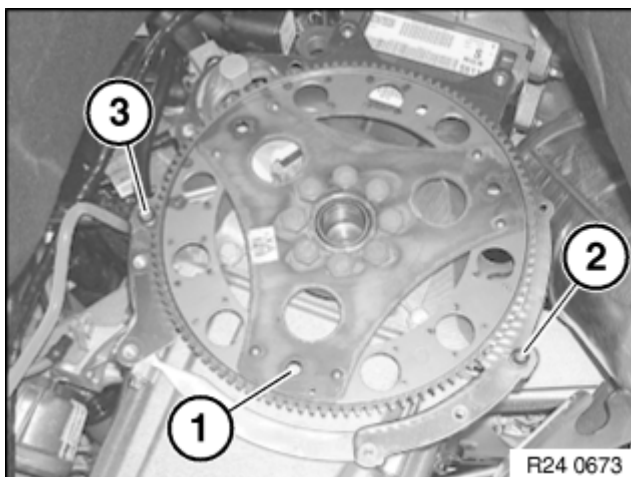
*Installation note:*

Tighten down screws/bolts to specified torque.

Attach special tool [00 9 120](#) for angle of rotation with magnet [00 9 130](#)

to vehicle underbody and screw down blue aluminium screws/bolts in accordance with angle of rotation.

Angle of rotation [24 00 2AZ](#).



*Installation note:*

Bore hole (1) of drive plate must be accessible from recess on engine oil sump. Check fitting sleeves (2...3) for correct seating.

Replace damaged fitting sleeves.



*Installation note:*

Rotate torque converter until bore hole in torque converter is flush with bore hole in driving plate.

Flange automatic transmission to engine.